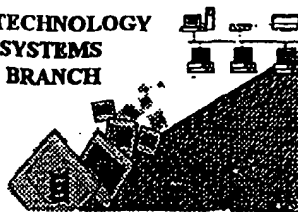




RAW SEQUENCE LISTING **ERROR REPORT**

BIOTECHNOLOGY
SYSTEMS
BRANCH



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/733,674
Source: OIP E
Date Processed by STIC: 12-29-03

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 703-308-4212; FAX: 703-308-4221

Effective 12/13/03: TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER** **VERSION 4.1 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkr41note.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to (EFFECTIVE 12/01/03):
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 10/08/03

Raw Sequence Listing Error Summary

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER:

10/733,674

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleics
 Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
- 2 Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.
- 3 Misaligned Amino
 Numbering The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
- 4 Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
- 5 Variable Length Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
- 6 PatentIn 2.0
 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 7 Skipped Sequences
 (OLD RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence:
 (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
 (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 This sequence is intentionally skipped

 Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
- 8 Skipped Sequences
 (NEW RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence.
 <210> sequence id number
 <400> sequence id number
 000
- 9 Use of n's or Xaa's
 (NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
 Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
 In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 10 X Invalid <213>
 Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence
- 11 Use of <220> Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses.
 Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
 (Sec "Federal Register," 0001/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
- 12 PatentIn 2.0
 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
- 13 Misuse of n/Xaa "n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid



IFWO

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/10/733,674

DATE: 12/29/2003
 TIME: 17:52:37

Input Set : A:\ONYX1033-CIP2.ST25.txt
 Output Set: N:\CRF4\12292003\J733674.raw

3 <110> APPLICANT: Johnson, Leisa
 4 Fattaey, Ali
 5 Hermiston, Terry
 6 Shen, Jerry
 7 Laquerre, Sylvie
 9 <120> TITLE OF INVENTION: An Oncolytic Adenovirus
 11 <130> FILE REFERENCE: ONYX1033-CIP2
 C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/733,674
 15 <141> CURRENT FILING DATE: 2003-12-11
 17 <150> PRIOR APPLICATION NUMBER: US 10/303,598
 19 <151> PRIOR FILING DATE: 2002-11-25
 21 <150> PRIOR APPLICATION NUMBER: US 09/714,409
 23 <151> PRIOR FILING DATE: 2000-11-14
 25 <150> PRIOR APPLICATION NUMBER: US 60/165,638
 27 <151> PRIOR FILING DATE: 1999-11-15
 29 <160> NUMBER OF SEQ ID NOS: 25
 31 <170> SOFTWARE: PatentIn version 3.1
 33 <210> SEQ ID NO: 1
 35 <211> LENGTH: 35
 37 <212> TYPE: DNA
 C--> 39 <213> ORGANISM: Artificial Sequences
 W--> 41 <220> FEATURE:
 41 <223> OTHER INFORMATION: Adenovirus
 43 <400> SEQUENCE: 1
 44 gctggtgccg tctcgagtgg tggtttttta atagg
 47 <210> SEQ ID NO: 2
 49 <211> LENGTH: 35
 51 <212> TYPE: DNA
 C--> 53 <213> ORGANISM: Artificial Sequences
 W--> 55 <220> FEATURE:
 55 <223> OTHER INFORMATION: Adenovirus
 57 <400> SEQUENCE: 2
 58 cctattaaaa aaacaccact cgagacggca ccagc
 61 <210> SEQ ID NO: 3
 63 <211> LENGTH: 26
 65 <212> TYPE: DNA
 C--> 67 <213> ORGANISM: Artificial Sequences
 W--> 69 <220> FEATURE:
 69 <223> OTHER INFORMATION: Adenovirus
 71 <400> SEQUENCE: 3
 72 ggccggagta actagtatgt gttggg
 75 <210> SEQ ID NO: 4
 77 <211> LENGTH: 26

**Does Not Comply
 Corrected Diskette Needed**

2.2

35

35

26

RAW SEQUENCE LISTING

DATE: 12/29/2003

PATENT APPLICATION: US/10/733,674

TIME: 17:52:37

Input Set : A:\ONYX1033-CIP2.ST25.txt

Output Set: N:\CRF4\12292003\J733674.raw

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79 <212> TYPE: DNA
C--> 81 <213> ORGANISM: Artifical Sequences
W--> 83 <220> FEATURE:
83 <223> OTHER INFORMATION: Adenovirus
85 <400> SEQUENCE: 4
86 cccaacacat actagttact ccgccc 26
89 <210> SEQ ID NO: 5
91 <211> LENGTH: 37
93 <212> TYPE: DNA
C--> 95 <213> ORGANISM: Artifical Sequences
W--> 97 <220> FEATURE:
97 <223> OTHER INFORMATION: Adenovirus
99 <400> SEQUENCE: 5
100 gtgagcacta gtcgcctggt accatccgga caaagcc 37
103 <210> SEQ ID NO: 6
105 <211> LENGTH: 34
107 <212> TYPE: DNA
C--> 109 <213> ORGANISM: Artifical Sequences
W--> 111 <220> FEATURE:
111 <223> OTHER INFORMATION: Adenovirus
113 <400> SEQUENCE: 6
114 gtgagcctcg agctcgatcc cgctccgccc ccgg 34
117 <210> SEQ ID NO: 7
119 <211> LENGTH: 31
121 <212> TYPE: DNA
123 <213> ORGANISM: d1922/47 see item 10 on error summary report
125 <400> SEQUENCE: 7
126 gctaggatcc gaagggattg acttactcac t 31
129 <210> SEQ ID NO: 8
131 <211> LENGTH: 31
133 <212> TYPE: DNA
C--> 135 <213> ORGANISM: Artifical Sequences
W--> 137 <220> FEATURE:
137 <223> OTHER INFORMATION: Adenovirus
139 <400> SEQUENCE: 8
140 gctagaattc ctcttcatcc tcgtcgtcac t 31
143 <210> SEQ ID NO: 9
145 <211> LENGTH: 20
147 <212> TYPE: DNA
C--> 149 <213> ORGANISM: Artifical Sequences
W--> 151 <220> FEATURE:
151 <223> OTHER INFORMATION: Adenovirus
153 <400> SEQUENCE: 9
154 ggtgacgtag gttttagggc 20
157 <210> SEQ ID NO: 10
159 <211> LENGTH: 21
161 <212> TYPE: DNA
C--> 163 <213> ORGANISM: Artifical Sequences
W--> 165 <220> FEATURE:

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/733,674

DATE: 12/29/2003

TIME: 17:52:37

Input Set : A:\ONYX1033-CIP2.ST25.txt

Output Set: N:\CRF4\12292003\J733674.raw

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165 <223> OTHER INFORMATION: Adenovirus
167 <400> SEQUENCE: 10
168 gccataacag tcagccttac c
171 <210> SEQ ID NO: 11
173 <211> LENGTH: 35
175 <212> TYPE: DNA
C--> 177 <213> ORGANISM: Artificial Sequences
W--> 179 <220> FEATURE:
179 <223> OTHER INFORMATION: Adenovirus
181 <400> SEQUENCE: 11
182 gtgagcggat ccgctcgatc ccgctccgcc cccgg
185 <210> SEQ ID NO: 12
187 <211> LENGTH: 37
189 <212> TYPE: DNA
C--> 191 <213> ORGANISM: Artificial Sequences
W--> 193 <220> FEATURE:
193 <223> OTHER INFORMATION: Adenovirus
195 <400> SEQUENCE: 12
196 gtgagcaagc ttcgcctggt accatccgga caaagcc
199 <210> SEQ ID NO: 13
201 <211> LENGTH: 31
203 <212> TYPE: DNA
C--> 205 <213> ORGANISM: Artificial Sequences
W--> 207 <220> FEATURE:
207 <223> OTHER INFORMATION: Adenovirus
209 <400> SEQUENCE: 13
210 cgcggaattc ttttggattg aagccaatat g
213 <210> SEQ ID NO: 14
215 <211> LENGTH: 30
217 <212> TYPE: DNA
C--> 219 <213> ORGANISM: Artificial Sequences
W--> 221 <220> FEATURE:
221 <223> OTHER INFORMATION: Adenovirus
223 <400> SEQUENCE: 14
224 cagtcccggg gtcggatccg ctccgaggag
227 <210> SEQ ID NO: 15
229 <211> LENGTH: 30
231 <212> TYPE: DNA
C--> 233 <213> ORGANISM: Artificial Sequences
W--> 235 <220> FEATURE:
235 <223> OTHER INFORMATION: Adenovirus
237 <400> SEQUENCE: 15
238 ctctcccgag cggatccgac accgggactg
241 <210> SEQ ID NO: 16
243 <211> LENGTH: 30
245 <212> TYPE: DNA
C--> 247 <213> ORGANISM: Artificial Sequences
W--> 249 <220> FEATURE:
249 <223> OTHER INFORMATION: Adenovirus

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/733,674

DATE: 12/29/2003

TIME: 17:52:37

Input Set : A:\ONYX1033-CIP2.ST25.txt

Output Set: N:\CRF4\12292003\J733674.raw

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251 <400> SEQUENCE: 16
252 gcgggaccac cgggtgtatc tcaggaggtg
255 <210> SEQ ID NO: 17
257 <211> LENGTH: 20
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C--> 261 <213> ORGANISM: Artificial Sequences
W--> 263 <220> FEATURE:
263 <223> OTHER INFORMATION: Adenovirus
265 <400> SEQUENCE: 17
266 gcattctcta gacacaggtg
269 <210> SEQ ID NO: 18
271 <211> LENGTH: 25
273 <212> TYPE: DNA
C--> 275 <213> ORGANISM: Artificial Sequences
W--> 277 <220> FEATURE:
277 <223> OTHER INFORMATION: Adenovirus
279 <400> SEQUENCE: 18
280 gggcgtaacc gagtaagatt tggcc
283 <210> SEQ ID NO: 19
285 <211> LENGTH: 31
287 <212> TYPE: DNA
C--> 289 <213> ORGANISM: Artificial Sequences
W--> 291 <220> FEATURE:
291 <223> OTHER INFORMATION: Adenovirus
293 <400> SEQUENCE: 19
294 ggcagataat atgtctcatt ttcagtcccg g
297 <210> SEQ ID NO: 20
299 <211> LENGTH: 31
301 <212> TYPE: DNA
C--> 303 <213> ORGANISM: Artificial Sequences
W--> 305 <220> FEATURE:
305 <223> OTHER INFORMATION: Adenovirus
307 <400> SEQUENCE: 20
308 gctaggatcc gaagggattg acttactcac t
311 <210> SEQ ID NO: 21
313 <211> LENGTH: 31
315 <212> TYPE: DNA
C--> 317 <213> ORGANISM: Artificial Sequences
W--> 319 <220> FEATURE:
319 <223> OTHER INFORMATION: Adenovirus
321 <400> SEQUENCE: 21
322 gctagaattc ctcttcaccc tcgtcgtcac t
325 <210> SEQ ID NO: 22
327 <211> LENGTH: 21
329 <212> TYPE: DNA
C--> 331 <213> ORGANISM: Artificial Sequences
W--> 333 <220> FEATURE:
333 <223> OTHER INFORMATION: Adenovirus
335 <400> SEQUENCE: 22

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/733,674

DATE: 12/29/2003

TIME: 17:52:37

Input Set : A:\ONYX1033-CIP2.ST25.txt

Output Set: N:\CRF4\12292003\J733674.raw

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336 gccataacag tcagccttac c                                21
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343 <212> TYPE: DNA
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W--> 347 <220> FEATURE:
347 <223> OTHER INFORMATION: Adenovirus
349 <400> SEQUENCE: 23
350 ggtgacgtag gttttagggc                                20
353 <210> SEQ ID NO: 24
355 <211> LENGTH: 24
357 <212> TYPE: DNA
C--> 359 <213> ORGANISM: Artificial Sequences
W--> 361 <220> FEATURE:
361 <223> OTHER INFORMATION: Adenovirus
363 <400> SEQUENCE: 24
364 cctttatcca gtgcattgac tggg                            24
367 <210> SEQ ID NO: 25
369 <211> LENGTH: 20
371 <212> TYPE: DNA
C--> 373 <213> ORGANISM: Artificial Sequences
W--> 375 <220> FEATURE:
375 <223> OTHER INFORMATION: Adenovirus
377 <400> SEQUENCE: 25
378 ggagaaagtt tgcagccagg                                20

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VERIFICATION SUMMARY

PATENT APPLICATION: US/10/733,674

DATE: 12/29/2003

TIME: 17:52:38

Input Set : A:\ONYX1033-CIP2.ST25.txt

Output Set: N:\CRF4\12292003\J733674.raw

L:13 M:270 C: Current Application Number differs, Replaced Application Number
L:39 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:1
L:41 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1
L:53 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:2
L:55 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:2
L:67 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:3
L:69 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:3
L:81 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:4
L:83 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:4
L:95 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:5
L:97 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:5
L:109 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:6
L:111 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:6
L:135 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:8
L:137 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:8
L:149 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:9
L:151 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:9
L:163 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:10
L:165 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:10
L:177 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:11
L:179 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:11
L:191 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:12
L:193 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:12
L:205 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:13
L:207 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:13
L:219 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:14
L:221 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:14
L:233 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:15
L:235 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:15
L:247 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:16
L:249 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:16
L:261 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:17
L:263 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:17
L:275 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:18
L:277 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:18
L:289 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:19
L:291 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:19
L:303 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:20
L:305 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:20
L:317 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:21
L:319 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:21
L:331 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:22
L:333 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:22
L:345 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:23
L:347 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:23
L:359 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:24
L:361 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:24
L:373 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:25

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/733,674

DATE: 12/29/2003

TIME: 17:52:38

Input Set : A:\ONYX1033-CIP2.ST25.txt

Output Set: N:\CRF4\12292003\J733674.raw

L:375 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:25